

CLAIMS

What is claimed is:

- 1 1. A portable chocolate dispenser comprising:
2
3 a chamber having a first and second end, the chamber to
4 receive chocolate at the first end,
5 a heater adjacent the chamber to heat chocolate
6 a nozzle adjacent the second end of the chamber, the nozzle
7 having an opening to allow chocolate to exit the portable
8 chocolate dispenser;
9 and,
10 a means to apply pressure to chocolate to force it from the
11 second end of the chamber through the opening in the nozzle.
- 1 2. The portable chocolate dispenser of claim 1 wherein
2 the portable chocolate dispenser is a toy for use by
3 children.
- 1 3. The portable chocolate dispenser of claim 1 wherein
2 the means to apply pressure is a plunger, the plunger
3 having a piston, the piston of the plunger to be inserted into
4 the first end of the chamber to apply pressure to chocolate.
- 1 4. The portable chocolate dispenser of claim 1 wherein
2 the means to apply pressure is a squeeze bulb, the squeeze
3 bulb having a one-way air valve, the squeeze bulb coupled to the
4 first end of the chamber to apply pressure to chocolate.
- 1 5. The portable chocolate dispenser of claim 1 wherein

2 the means to apply pressure is a flexible bladder, the
3 chamber having the flexible bladder and a fill tube cap, the
4 fill tube cap to couple to the first end of the chamber, the
5 flexible bladder to apply pressure to chocolate.

1 6. The portable chocolate dispenser of claim 1 wherein
2 the chamber is dimensioned to received chocolate through
3 the first end.

1 7. The portable chocolate dispenser of claim 1 wherein
2 the chocolate received at the first end of the chamber is
3 solid chocolate, the heater to heat the solid chocolate to
4 liquid chocolate, and the means to apply pressure to force the
5 liquid chocolate from the second end of the chamber and through
6 the opening in the nozzle.

1 8. The portable chocolate dispenser of claim 1 wherein
2 the heater to heat the chamber up to a temperature of one
3 hundred and five degrees Fahrenheit.

1 9. The portable chocolate dispenser of claim 1 wherein
2 the heater to heat the chamber over a temperature range of
3 eighty six to one hundred and twenty degrees Fahrenheit.

1 10. The portable chocolate dispenser of claim 1 wherein
2 the heater to heat the chamber to a melting point of solid
3 chocolate.

1 11. The portable chocolate dispenser of claim 4 wherein

2 the heater to heat the chamber over a temperature range of
3 eighty six to ninety six degrees Fahrenheit.

1 12. The portable chocolate dispenser of claim 1 wherein
2 the chocolate to be received by the chamber is a chocolate rod
3 in its solid state.

1 13. The portable chocolate dispenser of claim 1 wherein
2 the chocolate to be received by the chamber is a chocolate chip
3 in its solid state.

1 14. The portable chocolate dispenser of claim 1 wherein
2 the chocolate to be received by the chamber is a chocolate ball
3 in its solid state.

1 15. The portable chocolate dispenser of claim 1 wherein
2 the chocolate to be received by the chamber is a chocolate
3 powder in its solid state.

1 16. The portable chocolate dispenser of claim 1 wherein
2 the plunger includes a handle at an end of the rod to manually
3 apply pressure to dispense liquid chocolate from the chamber.

1 17. The portable chocolate dispenser of claim 1 wherein
2 the plunger includes a rack along an edge of the rod and the
3 chocolate dispenser further includes
4 a ratchet to engage the rack of the plunger to apply
5 pressure to dispense liquid chocolate from the chamber.

1 18. The portable chocolate dispenser of claim 1 wherein

2 the plunger includes a male thread along an outer surface
3 of the rod and a handle at an end of the plunger, and
4 the chocolate dispenser further includes
5 a female thread adjacent the end of the chamber to engage
6 the male thread of the plunger,
7 the handle to rotate the plunger to apply pressure to
8 dispense liquid chocolate from the chamber.

1 19. The portable chocolate dispenser of claim 12 wherein
2 the handle is a hand crank handle.

1 20. The portable chocolate dispenser of claim 12 wherein
2 the handle is a rotatable handle or knob.

1 21. The portable chocolate dispenser of claim 1 wherein
2 the plunger includes a male thread along an outer surface
3 of the rod and a first gear near an end, and
4 the chocolate dispenser further includes
5 a female thread adjacent the end of the chamber to threadly
6 engage the male thread of the plunger, and
7 a motor having a second gear to engage the first gear and
8 to rotate the plunger to thread it into the chamber and apply
9 pressure to dispense liquid chocolate.

1 22. The portable chocolate dispenser of claim 1 wherein
2 the piston of the plunger slideningly engages a wall of the
3 chamber.

1 23. A method of extruding chocolate comprising:
2 placing chocolate into a chamber;

3 heating the chamber with an electric heater to heat the
4 chocolate therein; and
5 evacuating a portion of the chocolate in the chamber
6 through an opening in a nozzle.

1 24. The method of claim 23 wherein
2 the heating of the chamber is to a temperature above a
3 melting point of solid chocolate.

1 25. The method of claim 24 wherein
2 the melting point of solid chocolate is a temperature range
3 from eighty six to ninety six degrees Fahrenheit.

1 26. The method of claim 23 wherein
2 the evacuating of the portion of the chocolate in the
3 chamber is applying gas pressure to the chocolate in the
4 chamber.

1 27. The method of claim 26 wherein
2 the applying gas pressure to the chocolate in the chamber
3 is by a squeeze bulb.

1 28. The method of claim 23 wherein
2 the evacuating of the portion of the chocolate in the
3 chamber is applying mechanical pressure to the chocolate in the
4 chamber.

1 29. The method of claim 28 wherein
2 the applying mechanical pressure to the chocolate in the
3 chamber is by a flexible bladder.

1 30. The method of claim 28 wherein
2 the applying mechanical pressure to the chocolate in the
3 chamber is by a plunger having a piston.

1 31. The method of claim 23 wherein
2 the heating of the chamber with the heater turns solid
3 chocolate to liquid chocolate.

1 32. The method of claim 31 wherein
2 the heating of the chamber over a temperature range of
3 eighty six to ninety six degrees Fahrenheit.

1 33. A method of dispensing chocolate comprising:
2 providing a portable chocolate dispenser including a heat
3 chamber, a heater, a nozzle, and a means to apply pressure;
4 placing chocolate into the heat chamber;
5 closing the heat chamber;
6 heating the heat chamber with the heater; and
7 applying pressure to the chocolate using the means to apply
8 pressure to force a portion of the chocolate out through the
9 nozzle of the portable chocolate dispenser.

1 34. The method of claim 33 wherein
2 the heating of the heat chamber is to a temperature above a
3 melting point of solid chocolate.

1 35. The method of claim 34 wherein
2 the melting point of solid chocolate is a temperature range
3 from eighty six to ninety six degrees Fahrenheit.

1 36. The method of claim 33 wherein
2 the means to apply pressure is a plunger having a piston,
3 and
4 the closing of the chamber is inserting the piston of the
5 plunger into the heat chamber.

1 37. The method of claim 33 wherein
2 the means to apply pressure is a squeeze bulb having a one-
3 way air valve, and
4 the closing of the chamber is coupling the squeeze bulb to
5 an end of the heat chamber.

1 38. The method of claim 33 wherein
2 the means to apply pressure is a flexible bladder, the heat
3 chamber including the flexible bladder, and
4 the closing of the chamber is coupling a fill cap to an end
5 of the heat chamber.

1 39. The method of claim 33 wherein
2 the heating of the heat chamber with the heater turns solid
3 chocolate to liquid chocolate.

1 40. A portable chocolate dispenser comprising:
2 a heating chamber to receive solid chocolate at a first end
3 and allow liquid chocolate to exit a second end;
4 a heater thermally coupled to the heating chamber, the
5 heater to heat the heating chamber to a temperature to melt
6 solid chocolate into a liquid chocolate;

7 a nozzle coupled to the second end of the heating chamber
8 to receive liquid chocolate, the nozzle having an orifice to
9 dispense liquid chocolate; and

10 a plunger having a piston at a first end of a rod, the
11 piston of the plunger to be inserted into the first end of the
12 heating chamber and to apply pressure to liquid chocolate in the
13 heating chamber.

1 41. The portable chocolate dispenser of claim 40 wherein
2 the portable chocolate dispenser is a toy chocolate
3 dispenser for use by children.

1 42. The portable chocolate dispenser of claim 40 wherein
2 the portable chocolate dispenser is a portable commercial
3 chocolate dispenser for use by bakers.

1 43. The portable chocolate dispenser of claim 40 wherein
2 the heater to heat the heating chamber to a temperature above a
3 melting point of solid chocolate.

1 44. The portable chocolate dispenser of claim 43 wherein
2 the melting point of solid chocolate is a temperature range from
3 eighty six to ninety six degrees Fahrenheit.

1 45. The portable chocolate dispenser of claim 40 further
2 comprising:

3 a first housing to hold the heating chamber, the heater,
4 and the nozzle coupled together.

1 46. The portable chocolate dispenser of claim 45 further
2 comprising:

3 a second housing to slideningly hold the plunger, the
4 second housing to couple to the first housing.

1 47. The portable chocolate dispenser of claim 40 wherein,
2 the orifice of the nozzle is small to write using liquid
3 chocolate.

1 48. The portable chocolate dispenser of claim 40 wherein,
2 the orifice of the nozzle is shaped to dispense liquid
3 chocolate into a decorative pattern.

1 49. The portable chocolate dispenser of claim 40 wherein,
2 the orifice of the nozzle is of sufficient size to quickly
3 dispense liquid chocolate into a mold.

1 50. The portable chocolate dispenser of claim 40 wherein
2 the plunger includes a handle at a second end of the rod to
3 manually apply pressure to liquid chocolate in the heating
4 chamber.

1 51. The portable chocolate dispenser of claim 40 wherein
2 the plunger includes a rack along an edge of the rod and
3 the portable chocolate dispenser further includes
4 a ratchet to engage the rack of the plunger to semi-
5 automatically apply pressure to liquid chocolate in the heating
6 chamber.

1 52. The portable chocolate dispenser of claim 40 further
2 comprising:

3 a lever actuator to engage the rod of the plunger and to
4 apply pressure to liquid chocolate in the heating chamber.

1 53. The portable chocolate dispenser of claim 52 further
2 comprising:

3 a releasable lock lever to engage the rod of the plunger
4 and to resist movement of the plunger.

1 54. The portable chocolate dispenser of claim 53 further
2 comprising:

3 a second housing to couple to the first housing, the second
4 housing to engage an end of the releasable lock lever and the
5 lever actuator and to slideningly engage the plunger.

1 55. A chocolate dispenser for use by children as a toy,
2 the chocolate dispenser comprising:

3 a case including

4 a chamber having a first and second end, the chamber
5 to receive chocolate,

6 a heater adjacent the chamber to heat chocolate to a
7 liquid state, and,

8 a nozzle adjacent the first end of the chamber, the
9 nozzle having an opening to dispense liquid chocolate;

10 and,

11 a plunger having a piston, the piston of the plunger to be
12 inserted into the second end of the chamber to apply pressure to

13 liquid chocolate and dispense it from the chamber through the
14 opening in the nozzle.

1 56. A portable chocolate dispenser comprising:
2 a heating chamber to receive solid chocolate at a first end
3 and allow liquid chocolate to exit a second end;
4 a heater thermally coupled to the heating chamber, the
5 heater to heat the heating chamber to a temperature to melt
6 solid chocolate into a liquid chocolate;
7 a nozzle coupled to the second end of the heating chamber
8 to receive liquid chocolate, the nozzle having an orifice to
9 dispense liquid chocolate; and
10 a squeeze bulb having a one-way air valve, the squeeze bulb
11 coupled to the first end of the heating chamber to apply
12 pressure to liquid chocolate in the heating chamber.

1 57. The portable chocolate dispenser of claim 56 wherein
2 the squeeze bulb has a seal to engage a slot near the top
3 of the heating chamber to form a gas tight seal.

1 58. The portable chocolate dispenser of claim 56 wherein
2 the portable chocolate dispenser is a toy chocolate
3 dispenser for use by children.

1 59. The portable chocolate dispenser of claim 56 wherein
2 the portable chocolate dispenser is a portable commercial
3 chocolate dispenser for use by bakers.

1 60. The portable chocolate dispenser of claim 56 wherein

2 the heater to heat the heating chamber to a temperature above a
3 melting point of solid chocolate.

1 61. The portable chocolate dispenser of claim 60 wherein
2 the melting point of solid chocolate is a temperature range from
3 eighty six to ninety six degrees Fahrenheit.

1 62. The portable chocolate dispenser of claim 56 further
2 comprising:
3 a housing to hold the heating chamber, the heater, and the
4 nozzle coupled together.

1 63. A portable chocolate dispenser comprising:
2 a collapsible heating chamber to receive solid chocolate at
3 a first end and allow liquid chocolate to exit a second end, the
4 collapsible heating chamber including
5 a flexible bladder on a side of the collapsible
6 heating chamber, the flexible to apply pressure to liquid
7 chocolate in the collapsible heating chamber;
8 a heater thermally coupled to the collapsible heating
9 chamber, the heater to heat the collapsible heating chamber to a
10 temperature to melt solid chocolate into a liquid chocolate;
11 a nozzle coupled to the second end of the collapsible
12 heating chamber to receive liquid chocolate, the nozzle having
13 an orifice to dispense liquid chocolate; and
14 a stopper to couple to the first end of the collapsible
15 heating chamber.

1 64. The portable chocolate dispenser of claim 63 wherein

2 the flexible bladder has a top seal and a bottom seal to
3 engage a housing of the portable chocolate dispenser.

1 65. The portable chocolate dispenser of claim 63 wherein
2 the portable chocolate dispenser is a toy chocolate
3 dispenser for use by children.

1 66. The portable chocolate dispenser of claim 63 wherein
2 the portable chocolate dispenser is a portable commercial
3 chocolate dispenser for use by bakers.

1 67. The portable chocolate dispenser of claim 63 wherein
2 the heater to heat the collapsible heating chamber to a
3 temperature above a melting point of solid chocolate.

1 68. The portable chocolate dispenser of claim 67 wherein
2 the melting point of solid chocolate is a temperature range from
3 eighty six to ninety six degrees Fahrenheit.

1 69. The portable chocolate dispenser of claim 63 further
2 comprising:

3 a housing to hold the collapsible heating chamber, the
4 heater, and the nozzle coupled together.

1 70. A playset for children comprising:
2 a toy chocolate dispenser including
3 a heating chamber to receive solid chocolate, and
4 a heater thermally coupled to the heating chamber to
5 melt solid chocolate into liquid chocolate;
6 and

7 a dispensing station to support the toy chocolate dispenser
8 and to dispense liquid chocolate in a dispensing area of the
9 dispensing station.

1 71. The playset of claim 70 wherein
2 the heater to heat the heating chamber to a temperature
3 above a melting point of solid chocolate.

1 72. The playset of claim 71 wherein
2 the melting point of solid chocolate is a temperature range
3 from eighty six to ninety six degrees Fahrenheit.

1 73. The playset of claim 70 wherein,
2 the dispensing station includes
3 a base having the dispensing area where liquid
4 chocolate is to be dispensed by the toy chocolate dispenser.

1 74. The playset of claim 73 wherein,
2 the dispensing station further includes
3 a support structure coupled to the base to support the
4 toy chocolate dispenser, the support structure having an opening
5 to receive the toy chocolate dispenser and point it towards the
6 dispensing area.

7 75. The playset of claim 70 wherein,
8 the dispensing station includes
9 a turntable to rotate an object to the dispensing
10 area, and
11 a base to rotatably support the turntable.

1 76. The playset of claim 75 wherein,
2 the dispensing station further includes
3 a tapper to tap the turntable to settle liquid
4 chocolate in a mold.

1 77. The playset of claim 75 wherein,
2 the dispensing station further includes
3 a mold tray to rest on the turntable to receive
4 liquid chocolate in the dispensing area, the mold tray
5 having one or more mold cavities, and
6 a tapper to tap the turntable to settle liquid
7 chocolate in the one or more mold cavities of the mold
8 tray.

1 78. The playset of claim 75 wherein,
2 the dispensing station further includes
3 a support structure coupled to the base to support the
4 toy chocolate dispenser, the support structure having an opening
5 to receive the toy chocolate dispenser and point it towards the
6 dispensing area.

1 79. The playset of claim 70 wherein,
2 the toy chocolate dispenser further includes
3 a nozzle to receive liquid chocolate from the heating
4 chamber and to dispense liquid chocolate, and
5 a plunger having a piston inserted into the heating
6 chamber to apply pressure to liquid chocolate.

1 80. The playset of claim 70 further comprising:

2 a toy character; and
3 a toy background.

1 81. The playset of claim 70 wherein,
2 the toy character is a baker, and
3 the toy background is a scene of a bakery.

1 82. The playset of claim 70 further comprising:
2 a cooling tray to cool liquid chocolate in a mold into
3 solid chocolate.

1 83. The playset of claim 70 wherein
2 the toy chocolate dispenser has a first housing and a
3 second housing, the first housing of the toy chocolate dispenser
4 to be inserted into an opening in the dispensing station with
5 the second housing to rest on the dispensing station to support
6 the toy chocolate dispenser.

1 84. A chocolate dispensing station comprising:
2 a portable chocolate dispenser including
3 a heating chamber to receive solid chocolate, and
4 a heater thermally coupled to the heating chamber to melt
5 solid chocolate into liquid chocolate;
6 and
7 a support structure to hold the portable chocolate
8 dispenser and to dispense liquid chocolate in a dispensing area.

1 85. The chocolate dispensing station of claim 84 wherein
2 the heater to heat the heating chamber to a temperature of
3 above a melting point of solid chocolate.

1 86. The chocolate dispensing station of claim 85 wherein
2 the melting point of solid chocolate is a temperature range
3 from eighty six to ninety six degrees Fahrenheit.

1 87. The chocolate dispensing station of claim 84 further
2 comprising:

3 a cooling tray to cool liquid chocolate in a mold into
4 solid chocolate.

1 88. The chocolate dispensing station of claim 84 further
2 comprising:

3 a turntable to rotate an object to the dispensing area; and
4 a base to rotatably support the turntable.

1 89. The chocolate dispensing station of claim 88 further
2 comprising:

3 a tapper to tap the turntable to settle liquid chocolate.

1 90. The chocolate dispensing station of claim 88 further
2 comprising:

3 a mold tray to rest on the turntable to receive liquid
4 chocolate in the dispensing area, the mold tray having one or
5 more mold cavities, and

6 a tapper to tap the turntable to settle liquid chocolate in
7 the one or more mold cavities of the mold tray.

1 91. The chocolate dispensing station of claim 84 wherein,
2 the portable chocolate dispenser further includes

3 a nozzle to receive liquid chocolate from the heating
4 chamber and to dispense liquid chocolate, and
5 a plunger having a piston inserted into the heating
6 chamber to apply pressure to liquid chocolate.

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